HIGH VISCOSITY-INDEX BASE STOCKS, BASE OILS AND LUBRICANT COMPOSITIONS, AND METHODS FOR THEIR PRODUCTION AND USE

Abstract of the Disclosure

This invention relates to base stocks and base oils that exhibit an unexpected combination of high viscosity index (130 or greater) and a ratio of measured-to-theoretical high-shear/low-temperature viscosity at -30C or lower and the methods of making them. Specifically, the present invention relates to low-volatility / low-viscosity lubricant base stocks, lubricant base stocks and base oils, formulated lubricant compositions or functional fluids comprising these base stocks and methods of making them. More particularly, this invention relates to lubricant compositions of low-temperature flow capability and low viscosity for passenger car motor lubricants of SAE 0W-XX grade (where XX = 40 or lower), methods for optimizing fuel economy using the same, and methods or processes to produce them.